DIRECT CONTRADICTIONS ON THE SOURCE CAUSE OF OPTICAL (SOLAR/ATMOSPHERIC) 'PHENOMENA'

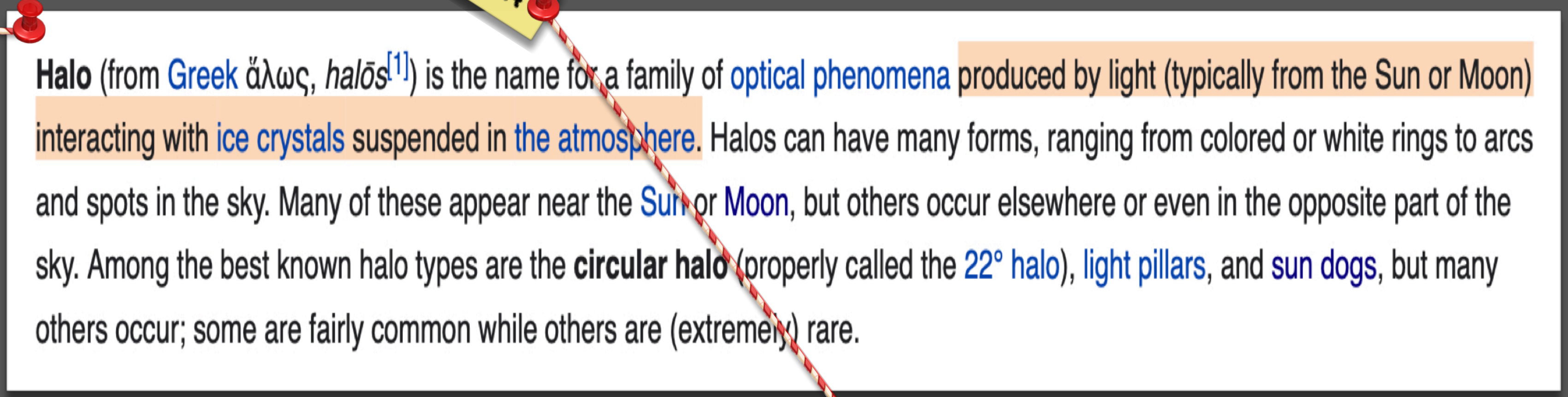
"OPTICAL 'PHENOMENA' IS PRODUCED BY LIGHT (typically Sun & Moon) INTERACTING WITH 'ICE CYSTALS' 'SUSPENDED' IN THE ATMOSPHERE"

"PHENOMENA"

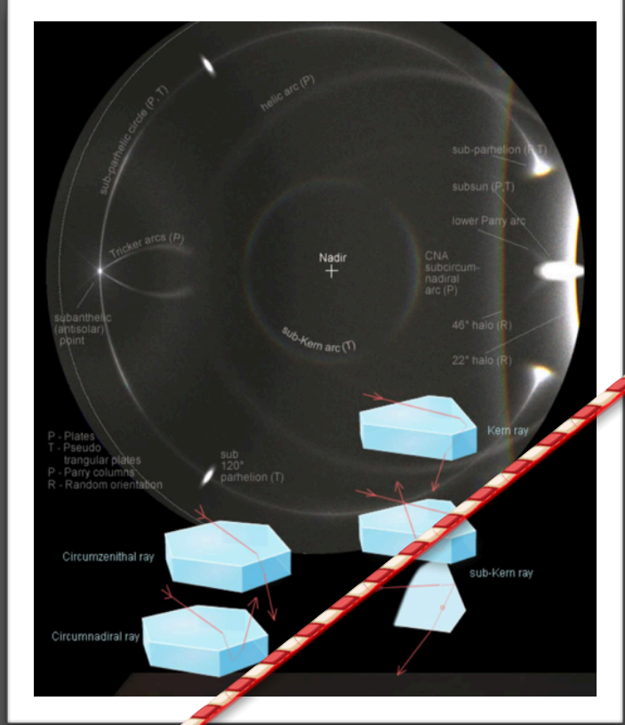
"ICE CRYSTALS"

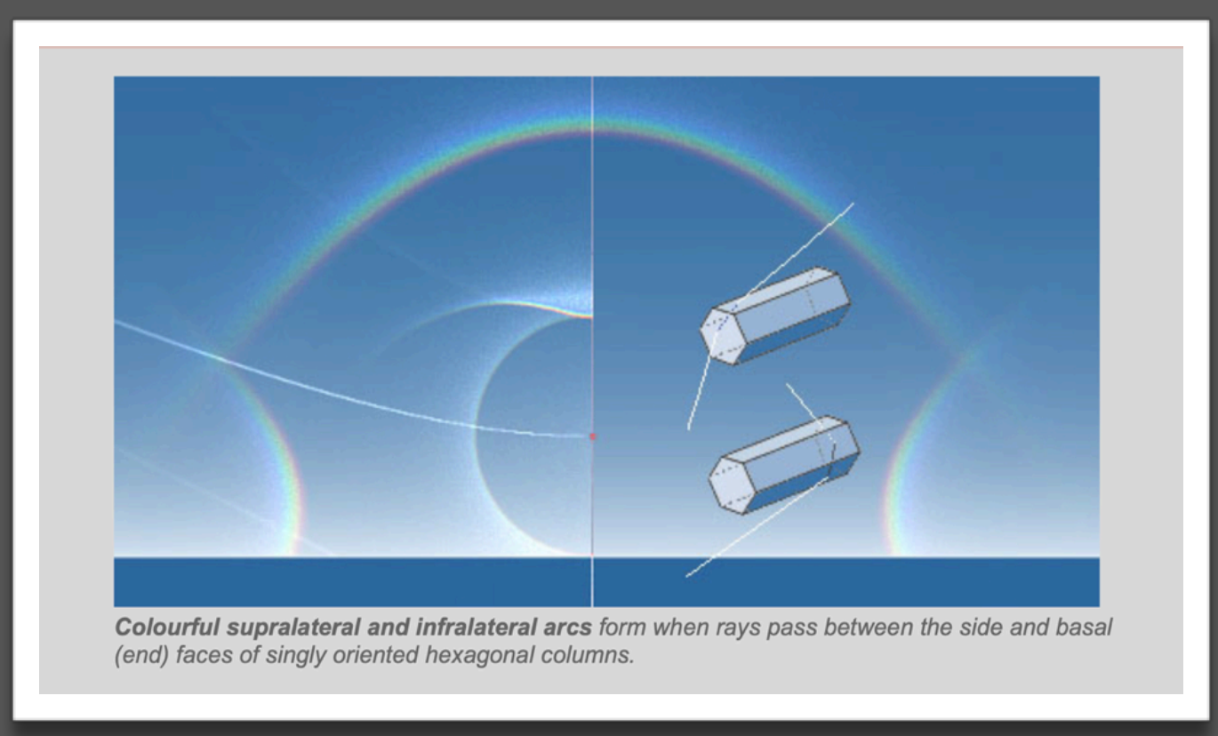
"SUSPENDED"

source-Wikipedia

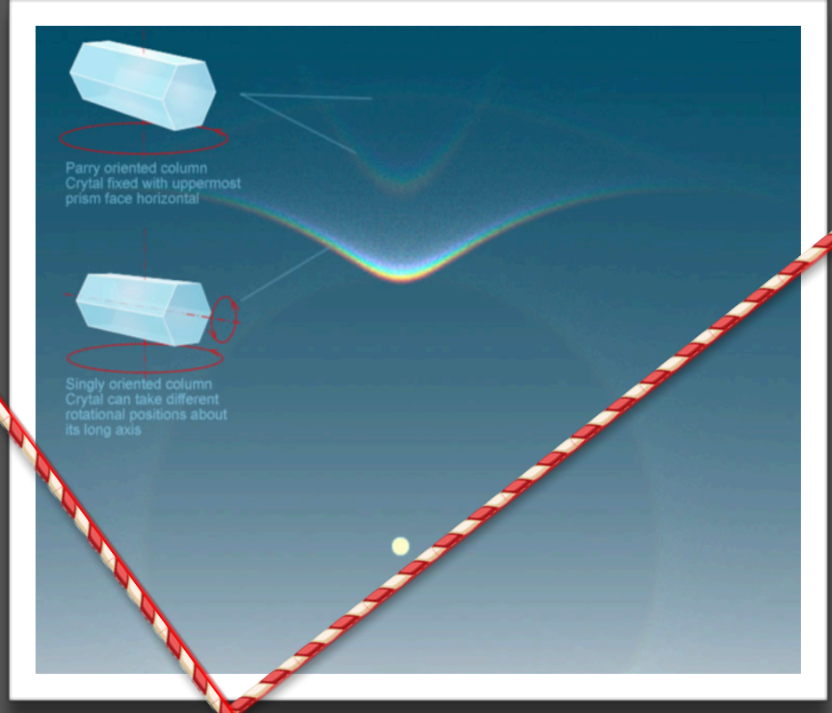


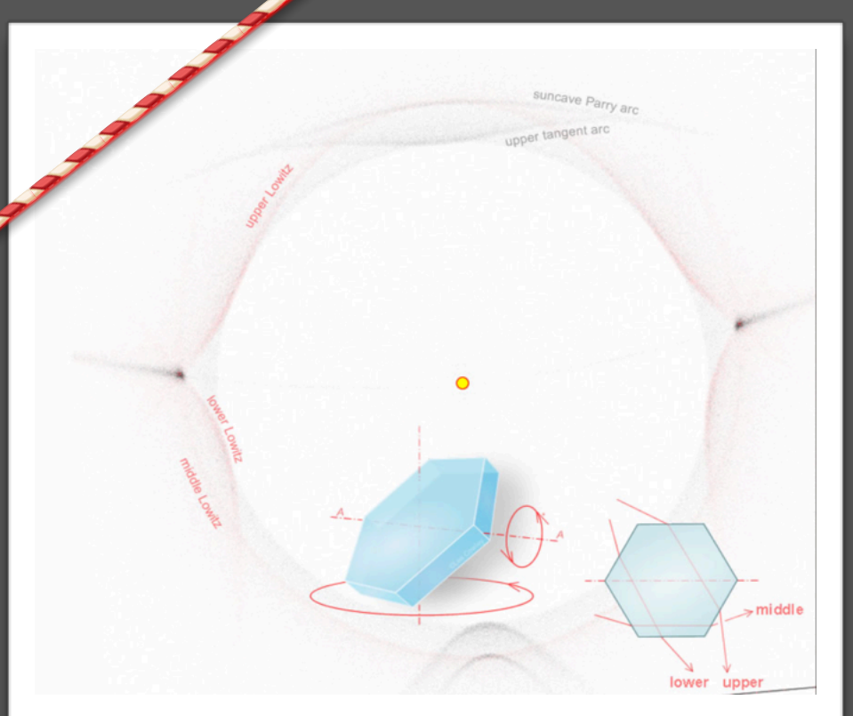
Halo (from Greek ἅλως, *halōs*[1]) is the name for a family of optical phenomena produced by light (typically from the Sun or Moon) interacting with ice crystals suspended in the atmosphere. Halos can have many forms, ranging from colored or white rings to arcs and spots in the sky. Many of these appear near the Sun or Moon, but others occur elsewhere or even in the opposite part of the sky. Among the best known halo types are the **circular halo** (properly called the 22° halo), light pillars, and sun dogs, but many others occur; some are fairly common while others are (extremely) rare.

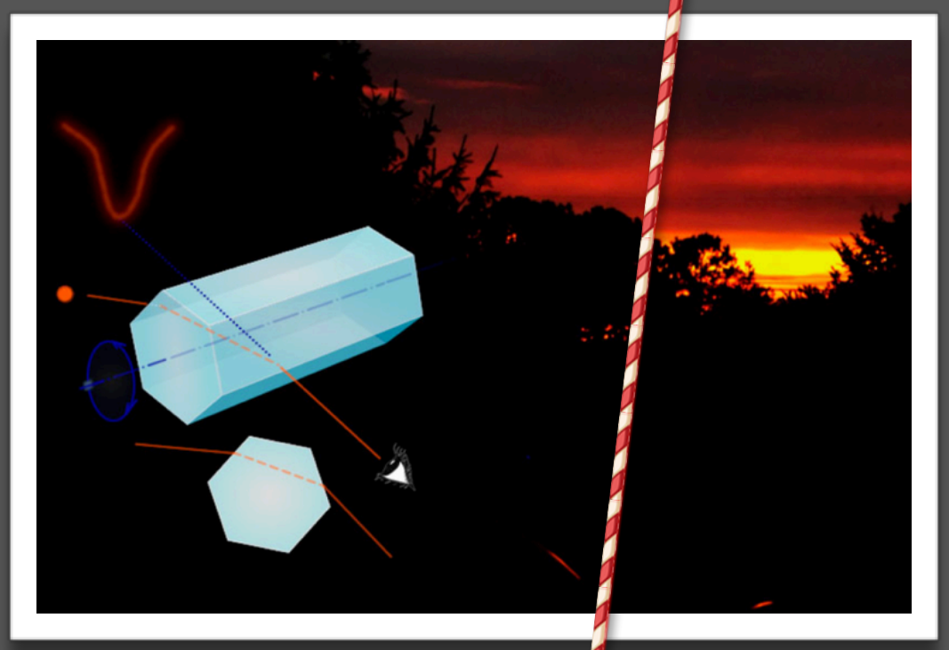


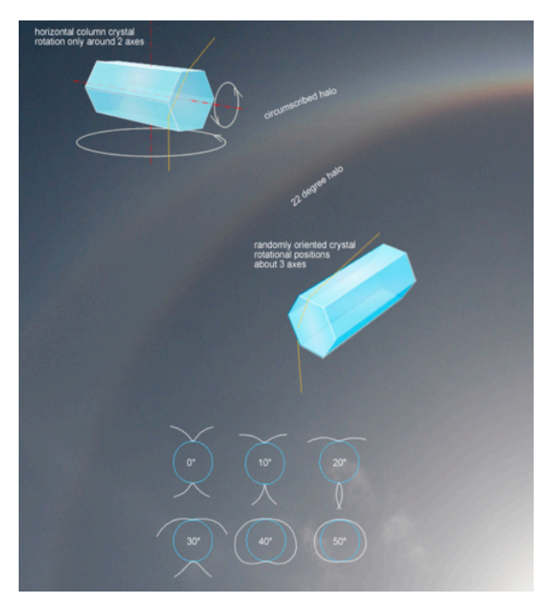


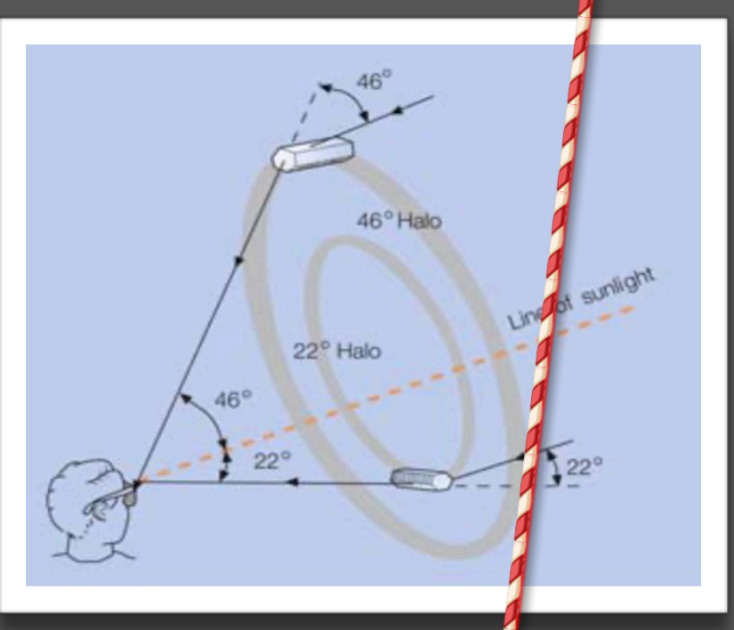
***Colourful supralateral and infralateral arcs** form when rays pass between the side and basal (end) faces of singly oriented hexagonal columns.*

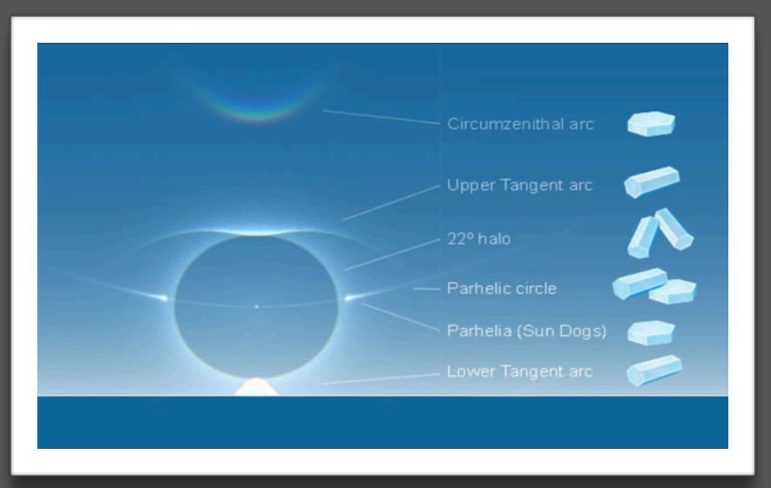












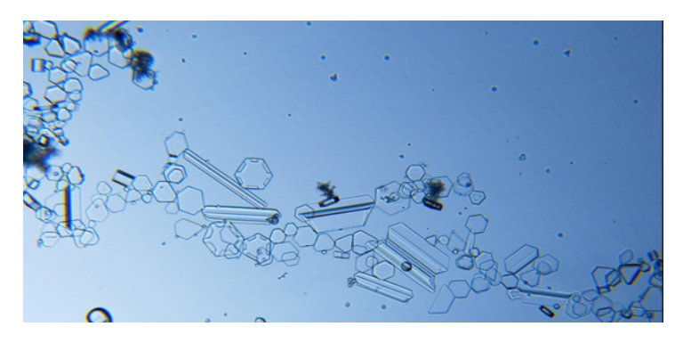
DIRECT CONTRADICTIONS

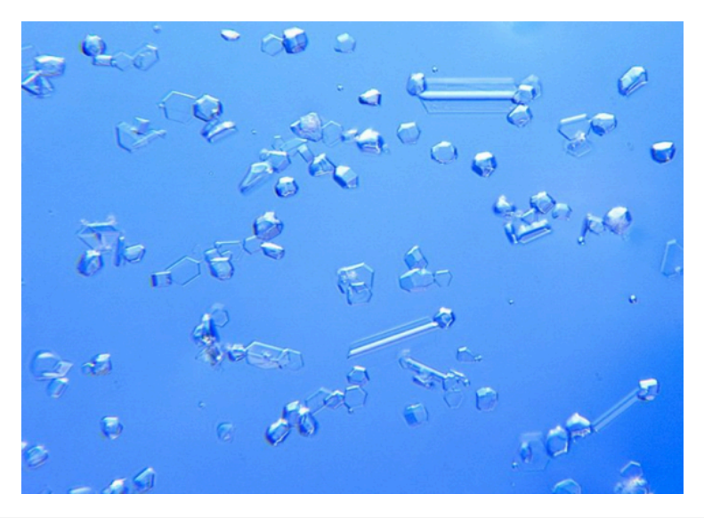
"ICE CRYSTALS"

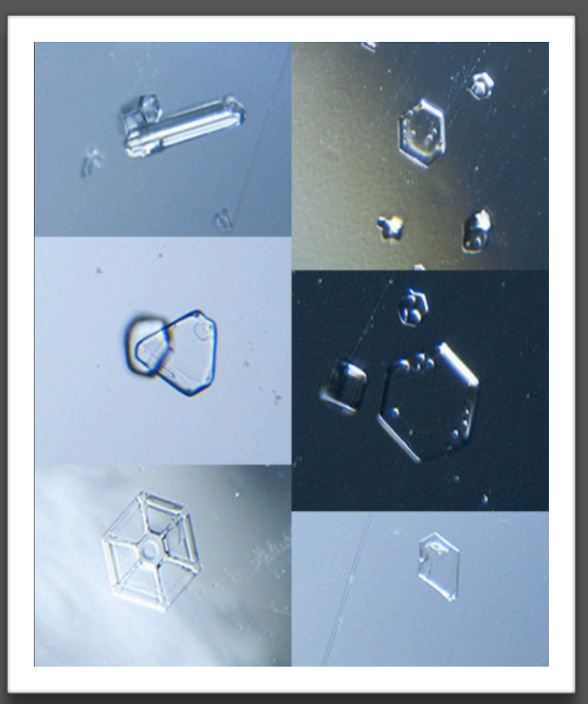
"SUSPENDED"

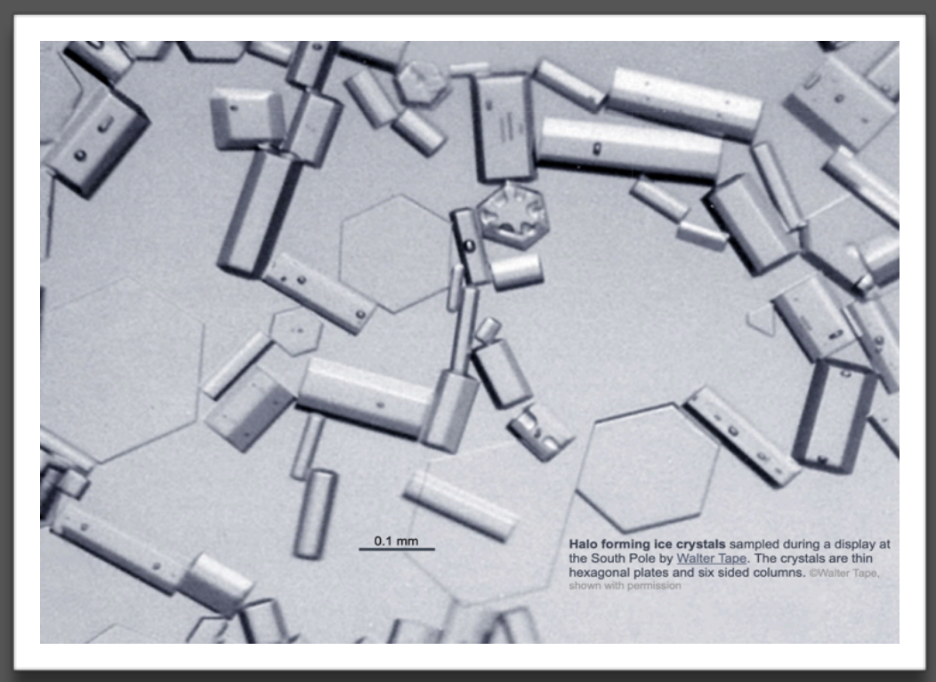
EVERY SNOW FLAKE, ICE CRYSTAL & WATER MOLECULE IN THE ATMOSPHERE IS DIFFERENT IN SHAPE, SIZE, QUANTITY & DISTANCE

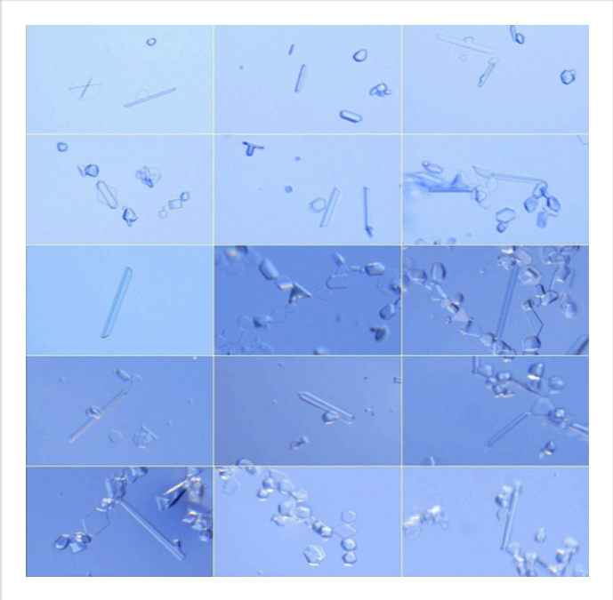
A WELL KNOWN FACT

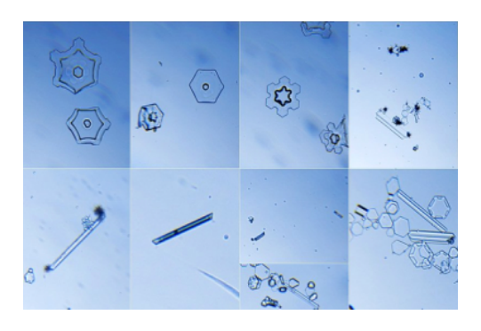








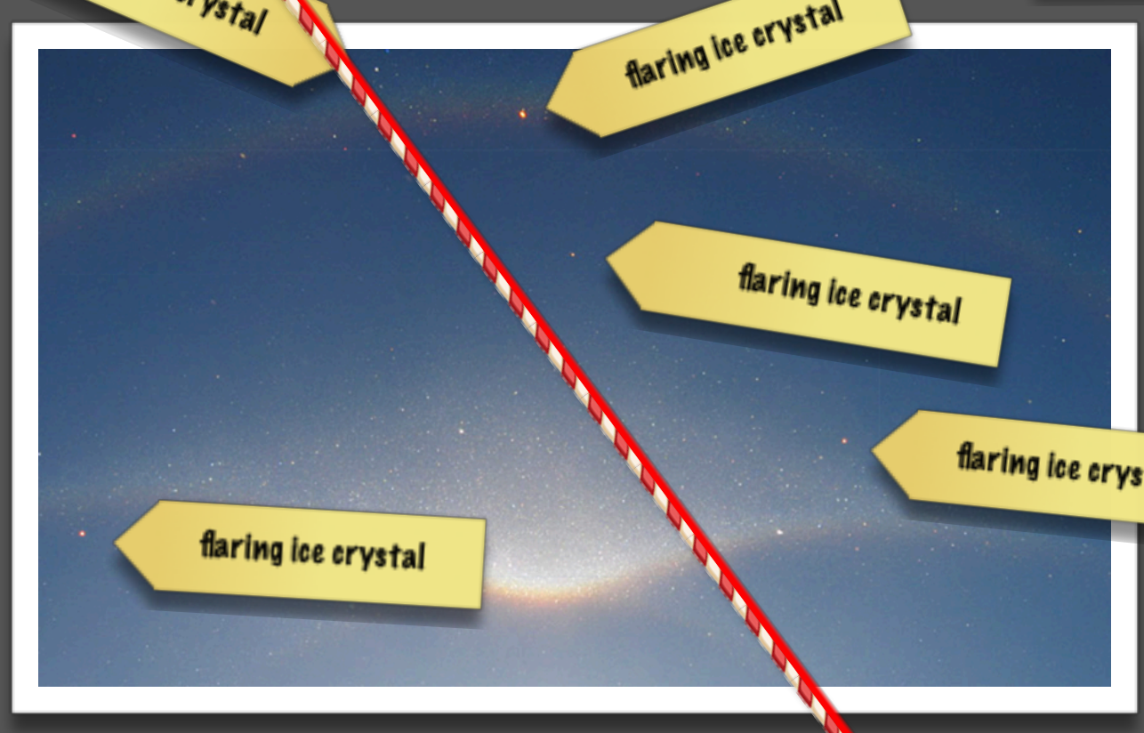


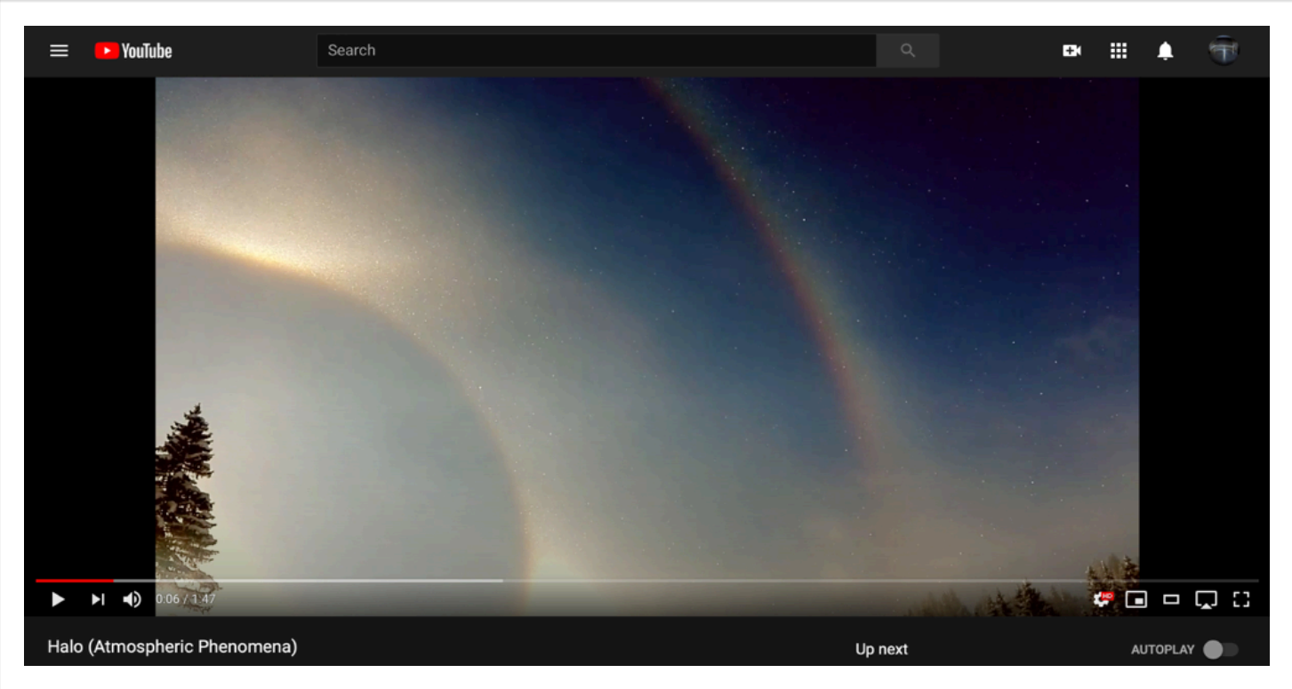


ATMOSPHERIC ICE CRYSTALS ARE IN STEADY MOTION DUE TO TEMPERATURE VARIATIONS & WIND; THE HIGHER THE ALTITUDE, TYPICALLY, THE GREATER THE WIND

Halo (Atmospheric Phenomena) YouTube video by soneo shows ice crystals flaring randomly, in steady flux

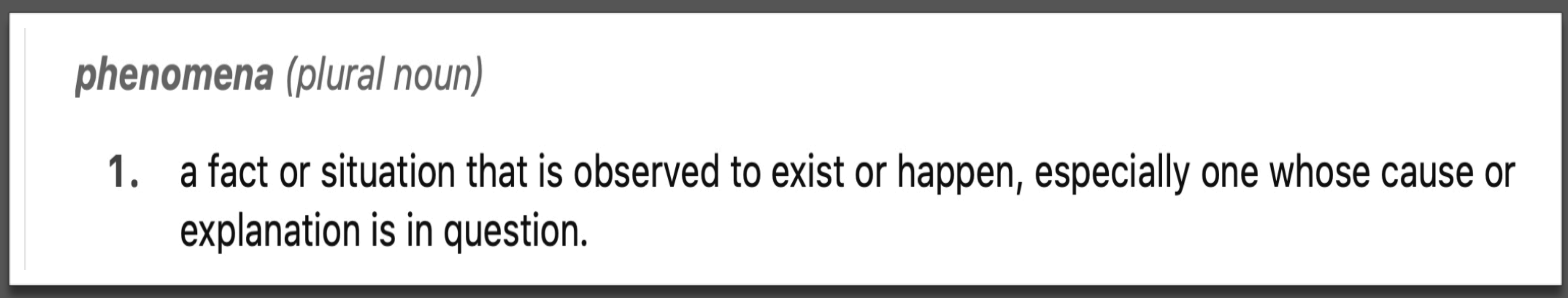
LINK https://www.youtube.com/watch?v=XZ2swREmQFo





"PHENOMENA"

The title implies that the cause is either 'unknown' or 'its explanation is in question'



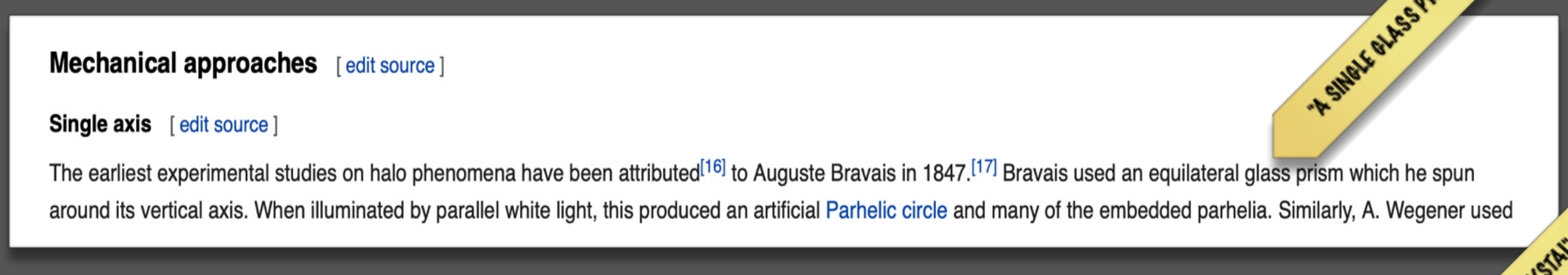
phenomena (plural noun)

1. a fact or situation that is observed to exist or happen, especially one whose cause or explanation is in question.

ALL RELATED EXPERIMENTS USE A SINGLE SOURCE TO REPLICATE THE OPTICAL GEOMETRY OBSERVED IN THE ATMOSPHERE

Mechanical approach on related experiments

source: Wikipedia

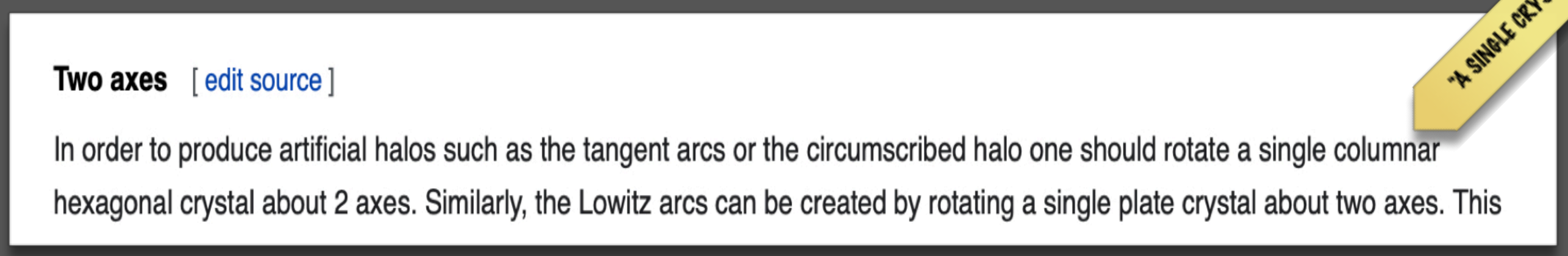


Mechanical approaches [edit source]

Single axis [edit source]

The earliest experimental studies on halo phenomena have been attributed[16] to Auguste Bravais in 1847.[17] Bravais used an equilateral glass prism which he spun around its vertical axis. When illuminated by parallel white light, this produced an artificial Parhelic circle and many of the embedded parhelia. Similarly, A. Wegener used

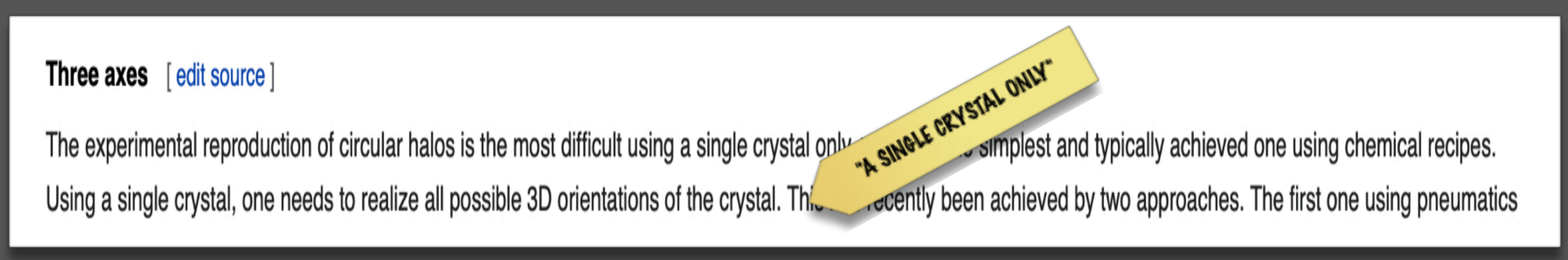
"A SINGLE GLASS PRISM"



Two axes [edit source]

In order to produce artificial halos such as the tangent arcs or the circumscribed halo one should rotate a single columnar hexagonal crystal about 2 axes. Similarly, the Lowitz arcs can be created by rotating a single plate crystal about two axes. This

"A SINGLE CRYSTAL"



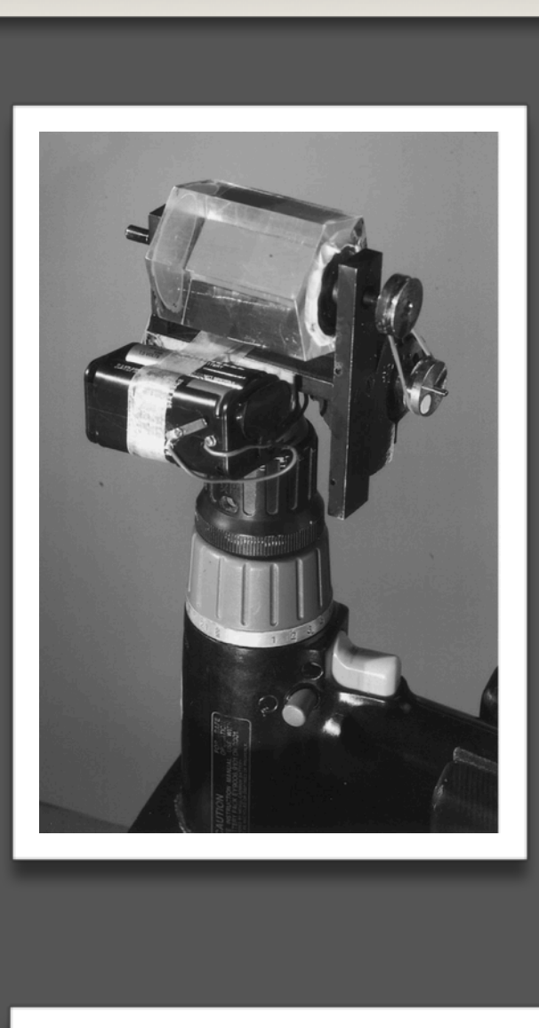
Three axes [edit source]

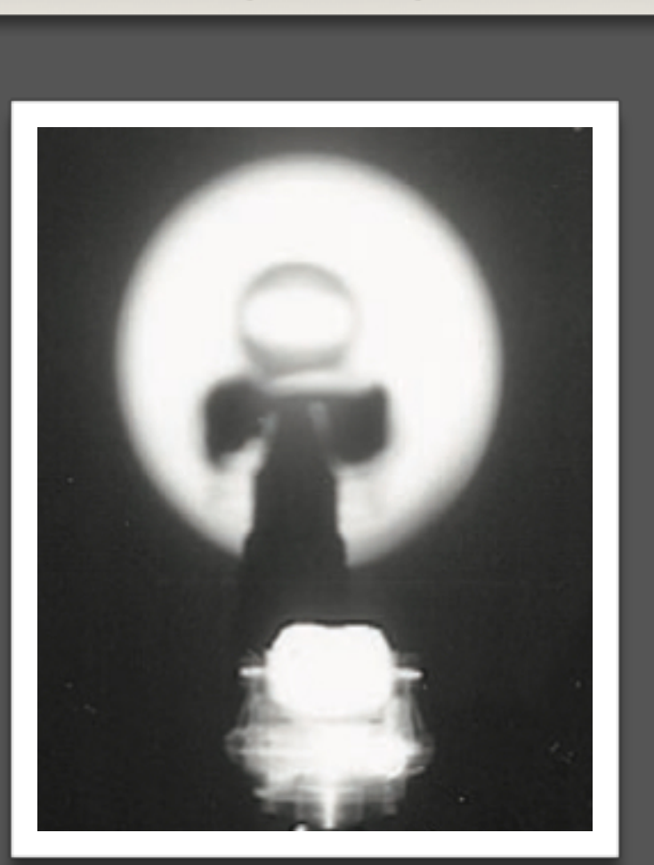
The experimental reproduction of circular halos is the most difficult using a single crystal only simplest and typically achieved one using chemical recipes. Using a single crystal, one needs to realize all possible 3D orientations of the crystal. Thi recently been achieved by two approaches. The first one using pneumatics

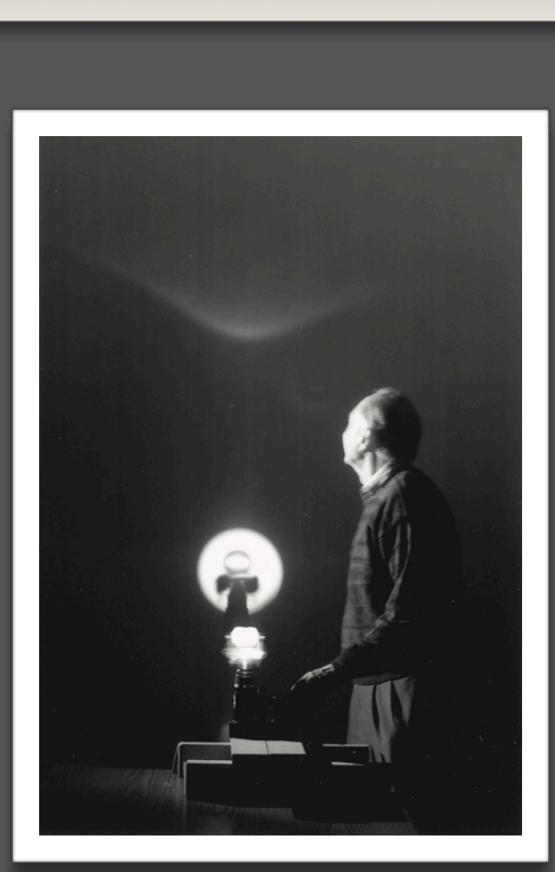
"A SINGLE CRYSTAL ONLY"

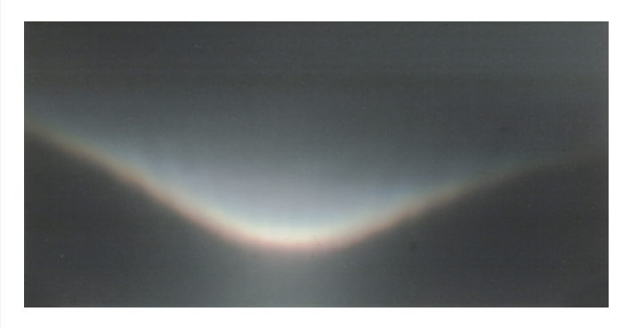
'Halo & mirage demonstrations in atmospheric optics' by Michael Vollmer & Robert Greenler

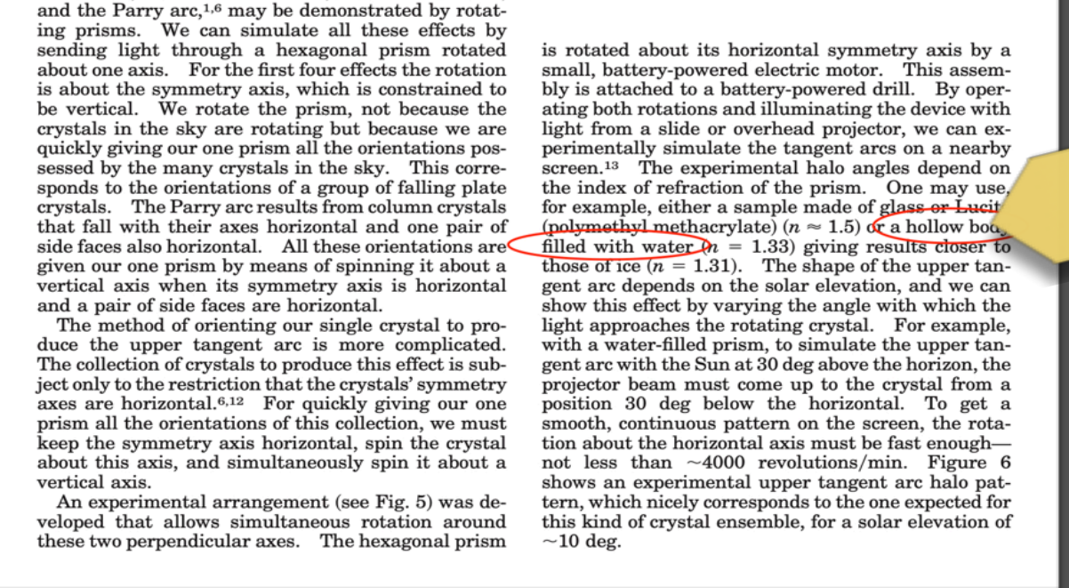
2003 Optical Society of America











3. Experimental Demonstration of Tangent Arc Halos

Several features of halos such as sun dogs, the parhelic circle, the circumhorizontal, the circumzenithal, and the Parry arc,1,6 may be demonstrated by rotating prisms. We can simulate all these effects by sending light through a hexagonal prism rotated about one axis. For the first four effects the rotation is about the symmetry axis, which is constrained to be vertical. We rotate the prism, not because the crystals in the sky are rotating but because we are quickly giving our one prism all the orientations possessed by the many crystals in the sky. This corresponds to the orientations of a group of falling plate crystals. The Parry arc results from column crystals that fall with their axes horizontal and one pair of side faces also horizontal. All these orientations are given our one prism by means of spinning it about a vertical axis when its symmetry axis is horizontal and a pair of side faces are horizontal.

The method of orienting our single crystal to produce the upper tangent arc is more complicated. The collection of crystals to produce this effect is subject only to the restriction that the crystals' symmetry axes are horizontal.6,12 For quickly giving our one prism all the orientations of this collection, we must keep the symmetry axis horizontal, spin the crystal about this axis, and simultaneously spin it about a vertical axis.

An experimental arrangement (see Fig. 5) was developed that allows simultaneous rotation around these two perpendicular axes. The hexagonal prism is rotated about its horizontal symmetry axis by a small, battery-powered electric motor. This assembly is attached to a battery-powered drill. By operating both rotations and illuminating the device with light from a slide or overhead projector, we can experimentally simulate the tangent arcs on a nearby screen.13 The experimental halo angles depend on the index of refraction of the prism. One may use, for example, either a sample made of glass or Lucit (polymethyl methacrylate) ($n \approx 1.5$) or a hollow bod filled with water ($n = 1.33$) giving results closer to those of ice ($n = 1.31$). The shape of the upper tangent arc depends on the solar elevation, and we can show this effect by varying the angle with which the light approaches the rotating crystal. For example, with a water-filled prism, to simulate the upper tangent arc with the Sun at 30 deg above the horizon, the projector beam must come up to the crystal from a position 30 deg below the horizontal. To get a smooth, continuous pattern on the screen, the rotation about the horizontal axis must be fast enough—not less than ~4000 revolutions/min. Figure 6 shows an experimental upper tangent arc halo pattern, which nicely corresponds to the one expected for this kind of crystal ensemble, for a solar elevation of ~10 deg.

Fig. 5. Experimental arrangement for simultaneous rotation of hexagonal column crystals around two perpendicular axes.

"A HOLLOW BODY FILLED WITH WATER"

EXEMPLIFYING THE LACK OF RATIONAL JUDGEMENT AT THE MOST BASIC LEVEL

a fist full of glitter does not reflect the same optical geometry as a single speck of glitter...

nor does it have the ability to generate consistant, reoccurring geometric patterens

These glittering fragments...

have nothing to do with the optical geometry of this arc...

neither collectively or individually

a swarm of birds does not have the appearance of a single bird...

a swarm of birds

a single bird

So how exactly do we rationalize the notion that an 'atmosphere full of water and ice would generate the exact optical geometry of a single molecule or crystal'?

The atmosphere's water molecules and ice cystals are merely the medium in which the optical geometry is being projected, NOT CREATED...

LocusPoint Labs/Observatory & Occult Studies

Cassidy O Kring 2020